REMARKS

Status of the Claims

- Claims 1-26 are pending in the Application after entry of this amendment.
- Claims 1-33 are rejected by Examiner.
- Claim 18 is amended by Applicant.
- Claims 27-33 are cancelled without prejudice or disclaimer.

Claim Rejections Pursuant to 35 U.S.C. §101

Claims 18-26 stand rejected under 35 U.S.C §101 because they are directed to non-statutory subject matter. Specifically, the claims as presented may include communications media as defined on paragraph 0023 of the specification.

Applicant amends Claim 18 to clearly recite computer readable storage medium which is statutory subject matter because it is an article of manufacture. Applicant respectfully requests withdrawal of the 35 U.S.C §101 rejection to Claims 18-26 in light of the amendment to independent Claim 18. Applicant also submits that this amendment does not add new matter and does not necessitate a new search.

Claim Rejections Pursuant to 35 U.S.C. §102

Claims 27, 28, and 30 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,974,549 to Golan.

Applicant cancels Claims 27, 28, and 30 without prejudice or disclaimer.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 1-4, 9-12, 17-21 and 26 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan. Applicant respectfully traverses the rejection.

The present Office Action, dated 11/01/06, page 5, explains the rejection of independent Claim 1 as follows:

"As per claim 1, Grimm discloses:

an image source from which the persisted object model (*i.e. software component*) is

instantiated in a memory of a computer; a security source from which a security agent

is instantiated in the memory of the computer [*Fig. 2, step 22 i.e. loads modified*

software component, which includes the original software component and the security

operation, col. 5 lines 42-51, Fig. 51; the security agent for controlling access to the

object model as instantiated in the memory of the computer [col. 5 lines 44-46, col. 6

lines 42-47]; and a loader for being instantiated in the memory of the computer upon a

command from a commander to execute the executable file to instantiate the persisted

object model [Fig. 2, col. 4 lines 65-67, col. 5 line I], the loader for instantiating the

object model in the memory from the image source, instantiating the security agent in

the memory from the security source [Fig. 2, loads modified software component, Fig.

51.

Grimm teaches the enforcement service and security policy service (i.e. security

agent) for performing the access checks when the modified software component is

executed [col. 2, 3, col. 6 lines 42-51]. Grimm doesn't expressively mention that

returning to the commander a first reference to the instantiated security agent."

(Office Action, page 5)

Thus, Applicant understands that the " image source from which the persisted object

model is instantiated" of Claim 1 is analogized to the "software component" of Grimm. It

becomes useful to understand the actual teaching of Grimm and compare that teaching to the

invention of Claim 1.

Grimm teaches:

"The present invention is directed to processing a *software component* 11, which is

shown in FIG. 1, *so that it can be modified as appropriate to implement a security*

policy as defined for the site where the software component is executed. [...]

Accordingly, the present invention enables such a component to be modified when it

is directed to a computer to be executed at the site, so that when executed, the

modified software component is forced to adhere to the security policy at the site.

When software component 11 as originally created needs to be loaded for execution by a computer, the present invention provides an introspection service 13 that intercepts the software component for analysis. Based upon information determined by introspection service 13, a security policy service 15 instructs an interposition service 17, which is also included in the present invention, how to modify the original software component to adhere to the security policies of the site. *The interposition service thus modifies the original software component by adding code to it producing a modified software component 21.*

The modified software component is thus available for execution by the computer requesting execution of the original software component. During execution by this computer, *the modified software component invokes an enforcement service 19*, which maintains the computer's security state. The enforcement service responds to the system's security state, queries the security policy service for security decisions related to that state, and enforces them on the computer that is executing the modified software component." (Grimm, col. 4 lines 9-44).

Thus, Applicant notes that Grimm teaches that an original software component 11 (analogized to the Claim 1 "image source from which the persisted object model is instantiated") is modified by an introspection service 13 by adding code. In Grimm, it is the modified software component, not the original software component, that is executed by the computer.

Claim 1 recites:

"An object model document for persisting an object model therein, the document comprising a compiled executable file having:

an image source from which the persisted object model is instantiated in a memory of a computer;

a security source from which a security agent is instantiated in the memory of the computer; the security agent for controlling access to the object model as instantiated in the memory of the computer; and

a loader for being instantiated in the memory of the computer upon a

command from a commander to execute the executable file to instantiate the persisted

object model, the loader for instantiating the object model in the memory from the

image source, instantiating the security agent in the memory from the security source,

and returning to the commander a first reference to the instantiated security agent,

whereby the commander in employing the first reference accesses the security agent

rather than the instantiated object model."

Applicant notes that Grimm fails to teach a single, executable object model document,

where the document comprises a compiled executable file having an image file source, a

security source, and a loader.

Grimm teaches that the original software component is modified by injecting into the

original software component calls to an enforcement service associated with security

identifiers. Grimm teaches:

"A block 18 notes that the security policy service then *imposes security operations on*

the original component that modify the operations originally coded into it. The code

that is injected into the original software component in blocks 16 and 18 comprises

calls to enforcement service 19, which instruct the enforcement service on how to

manage the component system's security state and how to enforce security on the

software component when it is executed as modified. In particular, *the security*

operations that are injected into the software component to modify it instruct the

enforcement service on how to associate component system objects with security

identifiers." (Grimm, col. 5 lines 28-42)

Grimm also teaches:

"After a modified software component has been loaded (i.e., linked and activated) by

a component system, it executes on the component system in the same manner it

would have prior to modification by the present invention-with one important

exception. *The security operations that have been injected into the software*

component to create the modified version by the interposition service are now

executed along with the code comprising the original software component." (Grimm,

col. 6 lines 6-14).

Thus, calls to the enforcement server 19 (Grimm, Figure 1) are inserted directly into

the original software component to generate the modified software component as in block 18

(Grimm, Figure 2). This specific modification is important to Grimm so that the security

operations are executed along with the original software component.

In contrast, Claim 1 does not modify any image source or object model as does

Grimm. Claim 1 recites an "object model document" that is a compiled executable file that

has three distinct parts; an image source, a security source, and a loader. Grimm does not

teach an executable file that includes an image source, a security source, and a loader as

separate elements as recited in Claim 1.

Whereas Grimm teaches a single entity called a "modified software component" that

includes an original software component with security operations coded into it, Claim 1

recites an object model document that is a compiled, executable file that contains (1) an

image source, (2) a security source, and (3) a loader, all in a single executable entity.

Applicant cannot find in Grimm a separate loader included in an executable entity along with

an image source and a separate security source as recited in Claim 1. Thus there are clear

structural differences between the teachings of Grimm and the invention of Claim 1.

Applicant also notes that the invention of Claim 1 also includes the functionality of

the loader. In Claim 1, the loader itself becomes instantiated in the memory of the computer

along with the object model from the image source and the security agent in the memory

from the security source. These instantiations are shown clearly in Figure 4, in memory 34, of

the present specification and are expressed in Claim 1. Applicant respectfully submits that

Grimm does not teach either the executable object model document containing the loader, the

image source and the security source. Grimm also does not teach the instantiations in

computer memory that include the loader, the object model, and the security agent upon

execution of the object model document as recited in Claim 1.

The Office Action on page 5 states:

"Grimm doesn't expressively mention that returning to the commander a first reference to the instantiated security agent." (Office Action, page 5).

Applicant agrees. However, Applicant notes that Golan fails to teach the Claim 1 elements that are missing from Grimm. Specifically, Golan also fails to teach an object model document comprising a compiled, executable file having the separate elements of an image source, a security source, and a loader. Golan also fails to teach that the loader, upon a command from a commander to execute the executable file to instantiate the persisted object model, instantiates the loader itself, the security agent from the security source, and the object model from the image source as recited in Claim 1.

Applicant notes that independent Claims 10 and 18 also recite the elements that are missing from the teachings of Grimm and Golan. Since the combination of Grimm and Golan does not teach or suggest all elements of independent Claims 1, 10 and 18, then the combination of Grimm and Golan cannot render obvious these independent claims under 35 U.S.C. §103(a) per MPEP §2143.03. Accordingly, dependent Claims 2-9, 11-17, and 19-26, which rely on independent Claims 1, 10, and 18 respectively are likewise rendered non-obvious. Thus, Claims 1-26 patentably define over the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 5, 13 and 22 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of US Publication No. 2003/0200459 to Seeman. Applicant respectfully traverses the rejection.

Claims 5, 13, and 22 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Seeman does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 5, 13, and 22 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 5, 13, and 22 because these claims patentably define over the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 6, 7, 14, 23, and 24 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of US Patent No. 6,980,308 to Masaki. Applicant respectfully traverses the rejection.

Claims 6-7, 14, and 23-24 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Masaki does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 6-7, 14, and 23-24 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 6-7, 14, and 23-24 because these claims patentably define over the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 8, 16, and 25 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,317,868 to Grimm et al. (Grimm) in view of U.S. Patent No. 5,974,549 to Golan and in further view of Us Publication No. 2002/0138727 to Dutta et al. (Dutta). Applicant respectfully traverses the rejection.

Claims 8, 16, and 25 are dependent on independent Claims 1, 10, and 18 respectively which are shown to be patentably distinct from Grimm and Golan as explained above. The addition of Dutta does not cure the deficiency of failing to teach all of the elements of the independent claims. According to MPEP §2143.03, Claims 8, 16, and 25 are also rendered non-obvious. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 8, 16, and 25 because these claims patentably define over the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 29 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,974,549 to Golan.

Applicant cancels Claim 29 without prejudice or disclaimer.

Claim Rejections Pursuant to 35 U.S.C. §103

Claim 31 stands rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,974,549 to Golan and in view of US Publication No. 2003/0200459 to Seeman.

Applicant cancels Claim 31 without prejudice or disclaimer.

Claim Rejections Pursuant to 35 U.S.C. §103

Claims 32 and 33 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,974,549 to Golan and in view of US Patent No. 6,980,308 to Masaki.

Applicant cancels Claims 32 and 33 without prejudice or disclaimer.

Conclusion

In view of the above amendment and remarks, Applicant submits that the present application is in a condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections. Applicant respectfully and earnestly solicits a Notice of Allowance for all pending claims.

Respectfully submitted,

Date: February 1, 2007   /Jerome G. Schaefer/

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